GREEN RIVER ACTION PLAN: YAMPA AND LITTLE SNAKE RIVERS

		ACTIVITY	WHO	STATUS	FY 04 10/03-9/04	FY 05 10/04-9/05	FY 06 10/05-9/06	FY 07 10/06-9/07	FY 08 10/07-9/08	FY 09 10/08-9/09	OUT- YEARS		
		PROVIDE AND PROTECT INSTREAM FLOWS (HABITAT MANAGEMENT)											
Hi	.A.	Basin-wide activities											
-	.A.1.	Identify fish habitat and flow needs											
	.A.1.a.	Complete Phase II feasibility study.	CRWCD/ CWCB/BR	Complete	Hydrosphere 1995.								
	.A.1.b.	Revise and update estimates of basin water needs.	CRWCD/FWS	Complete	BBC 1998.								
		Evaluate and recommend low flow and passage needs (also relates to restoration of fish passage, if	CDOW/FWS/										
l l	.A.1.c.	needed Recovery Element II).	CRWCD	Complete	Modde et al.	. 1999.							
	.A.1.d.	Provide hydrology support to develop and evaluate flow augmentation alternatives.	CWCB	Complete	CWCB provided CRDSS model runs to evaluate augmentation water supply alternatives in								
	.A.1.e.	Report synthesizing the results of water demand, low flow recommendations and hydrologic analyses.	FWS	Complete									
	.A.1.f.	Install, operate, and/or maintain stream flow and sediment monitoring gages.	FWS	Ongoing	X								
-	.A.1.q.	Install, operate, and/or maintain sediment monitoring gages.	1 000	Complete									
	.A.1.g.	Develop and implement Yampa River management plan.		Complete	Drait illiaric		/ 			T			
	.A.2.a.		Drogram										
	.A.Z.ä.	Negotiate a Cooperative agreement to implement the Yampa River management plan.	Program		Х								
I	.A.2.a.(1)	Develop a biological assessment for the management plan; initiate intra-Service Section 7 consultation based on the Service intent to enter into the Cooperative Agreement.	FWS		Х								
	.A.2.a.(1)a	Complete intra-Service consultation, resulting in a programmatic biological opinion (PBO) for the Yampa Basin.	FWS		X								
	.A.2.a.(2)	Fulfill NEPA requirements for the management plan.	FWS		Х								
			FWS/Program/										
	.A.2.b.	Sign Cooperative Agreement to implement the management plan.	Colorado/ CRWCD		X								
	.A.3.	Develop public involvement plan.	FWS/CDOW	Complete	SOW FY 96	and forward.							
	.A.3.a	Implement public involvement plan.	FWS/CDOW	Ongoing	Х								
-	.A.4.	Evaluate and revise as needed flow regimes to benefit endangered fish populations.	FWS/Program	Ongoing	Х	Х	Х	Х	Х	Х	Х		
-	.B.	Yampa River above the Little Snake River		3 3									
-	.B.1	Initially identify year-round flows needed for recovery.	FWS-FR	Complete	te Modde and Smith 1995.								
	.B.2	Provide augmentation of low flows.											
_	.B.2.a	Identify and acquire water source(s).											
_	.B.2.a.(1)	Steamboat Lake.											
				Complete	to								
	.B.2.a.(1)(a)	Change decree (litigation dependent).	CDPOR	5/97	Done in 1997.								
	.B.2.a.(1)(b)	Lease up to 2,000 af. to augment late summer flows. (Future use of Steamboat Lake Water to be determined.)	FWS-WR	Ongoing	Х	Х	Х	Х	Х	Х	Х		
-	.B.2.a.(1)(c)	Quantify transit losses.	CWCB	Complete	Done in 2000.								
I	.B.2.a.(2)	Identify and evaluate water supply alternatives for up to 7,000 af of stream flow augmentation.	Program	Complete	Roehm 2003.								
ı	.B.2.a.(2)(a)	Complete all necessary administrative, legal, environmental compliance, institutional and financial arrangements needed for development of Elkhead Reservoir enlargement.											
ı	.B.2.a.(2)(a)i)	Complete environmental compliance (7/04 completion date assumes PBO and FONSI are signed by 7/04).	CRWCD		7/04								
l li	.B.2.a.(2)(a)ii)	Complete funding agreement (by 3/04 for 4/04 design start).	CRWCD/CWCB		3/04	1			1	1			
	.B.2.a.(2)(a)iii)	Construct	CRWCD			Start 1/05	Х	12/06	1				
_	.B.2.a.(2)(b)	Deliver water for endangered fish.	Program					X	Х	Х	Х		
	.B.3.	Evaluate need for instream flow water rights.											
	.B.3.a	Review scientific basis.	CWCB/CDOW	Complete	Approval of	Modde et al. 1	999.						
	.B.3.b	Assess legal and physical availability of water.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.								
	.B.3.c	Assess compact considerations.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.								
ı	.B.3.d	Five-year periodic review of progress under the PBO to determine if instream flow filings are necessary.	. CWCB/FWS							Х	Х		
	.B.3.d.(1)	If necessary, evaluate how identified flows will be legally protected.	CWCB							Х	Х		
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I.C.1.	Evaluate importance of Little Snake to endangered fishes and develop management action plan. (Determine if habitat exists to protect under Colorado's instream flow program.)	BR/LFL	Complete	Hawkins et al. 2001; Hawkins and O'Brien 2001.								
I.C.2.	Initially identify year-round flows needed for recovery (needed).											
I.C.2.a.	Develop work plan.	BR/LFL	Complete	Hawkins et a	al. 2001; Hawl	kins and O'Bri	ien 2001.					
I.C.2.b.	Identify flows.	FWS-WR		6/04						ł		
I.C.3.	Evaluate need for instream flow water rights.											
I.C.3.a.	Review scientific basis.	CWCB/CDOW	Complete									
I.C.3.b.	Assess legal and physical availability of water.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.								
I.C.3.c.	Assess compact considerations.	CWCB	Complete		Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.							
I.C.3.d.	Five-year periodic review of progress under the PBO to determine if instream flow filings are necessary.	CWCB/FWS Wyoming							Х	Х		
I.C.3.d.(1)	If necessary, evaluate how identified flows will be legally protected.	CWCB/ Wyoming							Х	Х		
I.C.4.	Assess Wyoming's current and future water needs.	Wyoming	Complete	Assessment	of Wyoming's	s future water	needs is com	pleted (see 20	001 RIPRAP a	assessment)		
I.D.	Yampa River below Little Snake River											
I.D.1.	Initially identify year-round flows needed for recovery.	FWS-FR	Complete	Modde and	Smith 1995.							
I.D.1.a.	Modify based on revisions to environmental baseline.	FWS-WR	Complete	Modde and								
I.D.1.b.	Update flow recommendations to include flows from the Little Snake River.	FWS	Complete	9/04				1				
I.D.2.	Evaluate need for instream flow water rights.											
I.D.2.a.	Review scientific basis.	CWCB/CDOW	Complete									
I.D.2.b.	Assess legal and physical availability of water.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.								
I.D.2.c.	Assess compact considerations.	CWCB	Complete	Colorado completed work on a water availability study in early 1995 & the work was used as the basis of the allocation of compact water between the five subbasins.								
I.D.2.d.	Five-year periodic review of progress under the PBO to determine if instream flow filings are necessary.	CWCB/FWS						x	Х	Х		
I.D.2.d.(1)	If necessary, evaluate how identified flows will be legally protected.	CWCB						X	X	X		
II.	RESTORE HABITAT (HABITAT DEVELOPMENT AND MAINTENANCE)									i		
II.A.	Yampa River from Dinosaur National Monument to Craig, Colorado											
II.A.1.	Restore native fish passage at instream barriers and reduce impacts of maintaining diversion structures.											
II.A.1.a.	Inventory potential barriers.	CRWCD	Complete	Hydrosphere	1995.							
II.A.1.b.	Determine threshold (passage) flows between Craig and Dinosaur National Monument (low-flow dependent).	CDOW/FWS	Complete		Modde et al. 1999.							
II.A.1.c.	Develop guidelines to facilitate fish passage at new diversion structures.	PD/FWS-ES	Complete	Roehm 2003	3.							
II.A.2.	Reduce/eliminate entrainment of Colorado pikeminnow at diversion structures.											
II.A.2.a.	Identify and evaluate existing diversion structures for entrainment of Colorado pikeminnow	PD/FWS-ES	Ongoing	Х	Х	Х	Х	Х	Х	Х		
>* II.A.2.b.	Develop and implement remedial measures, as necessary, to reduce or eliminate entrainment.	PD/CDOW/	Ongoing	X	X	X	X	X	X	X		
II.A.2.c.	Develop guidelines to reduce or eliminate entrainment at new diversion structures, if necessary.	FWS PD/CDOW/ FWS	Complete	Roehm 2003.								
II.A.3.	Review NPS/USGS report to assess potential for negative impacts of elevated pH to endangered fish.	Program	Complete	PD's office r	PD's office reviewed Chafin 2002 and agreed elevated pH is a sampling artifact.							
II.B.	Green River from Ouray to Jensen, Utah (see Green River Action Plan)											
II.B.1	Acquire interest in high-priority flooded bottomland habitats between Ouray NWR and Jensen to benefit endangered fish (see Green River Action Plan : Mainstem II.A.2.)											
II.B.2.	Implement levee removal strategy at high-priority sites (see Green River Action Plan : Mainstem II.A.3.).											
III.	REDUCE NEGATIVE IMPACTS OF NONNATIVE FISHES AND SPORTFISH MANAGEMENT ACTIVITIES (NONNATIVE AND SPORTFISH MANAGEMENT)											
III.A.	Develop aquatic management plan (Colorado) to reduce nonnative fish impacts while providing sportfishing opportunities (also relates to nonnative fish management/control Recovery Element III). CDOW 1998.	CDOW	Complete; due for revision	х	х							
>* III.A.1.	Implement Yampa Basin aquatic wildlife management plan to develop nonnative fish control programs in reaches of the Yampa River occupied by the endangered fishes. Each control activity will be evaluated for effectiveness and then continued as needed.	CDOW	Ongoing	х	х	х	х	х	х	х		
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	III.A.1.a.	Identify potential conflicts between present fisheries management in existing Elkhead Reservoir and endangered fishes and formulate alternative management plan.	CDOW	Complete	CDOW 2003.							
	III.A.1.a.(1)	Evaluate nonnative fish escapement and control options at Elkhead Reservoir (during and after Elkhead expansion construction).	FWS-FR/ CDOW		Х							
>*	III.A.1.a.(2)	Implement control measures as needed to control escapement (during and after Elkhead expansion construction).				Х	Х	Х	Х	х	Х	
	III.A.1.b.	Control northern pike										
>*	III.A.1.b.(1)	Remove and translocate northern pike from Yampa River.	CDOW/FWS	Ongoing	Х	Х	Х					
	III.A.1.b.(2)	Reduce northern pike reproduction in the Yampa River.										
	III.A.1.b.(2)(a)	Identify and evaluate natural and artificial spawning/nursery habitats for northern pike in the Yampa River for exclusion devices.	CDOW		Х							
>*	III.A.1.b.(2)(b)	Implement remedial measures to reduce pike reproduction in Yampa River.	CDOW		Х							
	III.A.1.b.(2)(c	Develop guidelines for new structures to minimize creation of habitat suitable for pike spawning/nursery.	CDOW		x							
	III.A.1.c.	Control channel catfish										
>*	III.A.1.c.(1)	Remove channel catfish in Yampa Canyon.	FWS	Ongoing	Х	Х	Х					
>*	III.A.1.c.(2)	Remove and translocate channel catfish above Yampa Canyon.	CDOW	On hold								
>*	III.A.1.d.	Remove and translocate smallmouth bass.	CDOW	Ongoing	Х	Х	X					
	III.A.1.e.	Remove bag and possession limits on warmwater nonnative sportfishes within critical habitat in Colorado.	CDOW	Complete	In Colorado fishing regulations.							
	IV.	MANAGE GENETIC INTEGRITY AND AUGMENT OR RESTORE POPULATIONS (STOCKING ENDANGERED FISHES)										
	IV.A.	Yampa River in Dinosaur National Monument										
	IV.A.1.	Augment or restore populations as needed, and as guided by the Genetics Mgmt. Plan.										
	IV.A.1.a.	Develop State stocking plan for bonytail in the Yampa River.	CDOW	Complete	Nesler et al. 2003							
>	IV.A.1.a.(1)	Implement stocking plan.	FWS/CDOW	Ongoing	Х	Х	Х	Χ	Χ	Х	Χ	
	IV.A.1.b.	Evaluate stocking success as identified in monitoring plan for stocked fish.	LFL/FWS/ States/PD	Ongoing	Х	Х	Х	Х	Х	Х	Х	
	v.	MONITOR POPULATIONS AND HABITAT AND CONDUCT RESEARCH TO SUPPORT RECOVERY ACTIONS (RESEARCH, MONITORING, AND DATA MANAGEMENT)										
	V.A.	Conduct population estimate for humpback chub.	FWS		Х			X	X	Х	X	